TENNESSEE DEPARTMENT OF EDUCATION
FIRST TO THE TOP

A/V Production I

Primary Career Cluster:	Arts, A/V Technology, & Communications
Consultant:	Rachel Allen, (615) 532-2835, Rachel.Allen@tn.gov
Course Code(s):	6049
Prerequisite(s):	None
Credit:	1
Grade Level:	9
Graduation Requirements:	This course satisfies one of three credits required for an elective focus when taken in conjunction with other Arts, A/V Technology & Communication courses.
Programs of Study and Sequence:	This is the first course in the *A/V Production* program of study.
Aligned Student Organization(s):	SkillsUSA: http://site1.tnskillsusa.com/ Brandon Hudson, (615) 532-2804, Brandon.Hudson@tn.gov Technology Student Association (TSA): http://www.tntsa.org Amanda Hodges, (615) 532-6270, Amanda.Hodges@tn.gov
Coordinating Work-Based Learning:	Teachers are encouraged to use embedded WBL activities such as informational interviewing, job shadowing, and career mentoring. For information, visit http://tn.gov/education/cte/work_based_learning.shtml.
Available Student Industry Certifications:	Adobe Certified Associate or Apple Certified Pro
Dual Credit or Dual Enrollment Opportunities:	There are no known dual credit/dual enrollment opportunities for this course. If interested in developing, reach out to a local postsecondary institution to establish an articulation agreement.
Teacher Endorsement(s):	538, 576, 597, 710
Required Teacher Certifications/Training:	None
Teacher Resources:	http://www.tn.gov/education/cte/artstech.shtml

Course Description

A/V Production I is a foundational course in the Arts, A/V Technology, & Communications cluster for students interested in A/V (audio/visual) production occupations. Upon completion of this course, proficient students will be able to explain and complete the phases of the production process including pre-production, production, and post-production. Students will establish basic skills in operating

cameras, basic audio equipment, and other production equipment. Standards in this course include career exploration, an overview of the history and evolution of A/V production, and legal issues affecting A/V production. In addition, students will begin compiling artifacts for inclusion in a portfolio, which they will carry with them throughout the full sequence of courses in this program of study. Standards in this course are aligned with Tennessee State Standards for English Language Arts & Literacy in Technical Subjects, Tennessee State Standards in Mathematics, Tennessee State Standards for Physical World Concepts, Physical Science, Physics, and Visual Art.*

Program of Study Application

This is the first course in the *A/V Production* program of study. For more information on the benefits and requirements of implementing this program in full, please visit the Arts, A/V Technology, & Communications website at http://www.tn.gov/education/cte/artstech.shtml.

Course Standards

Safety

1) Accurately read, interpret, and demonstrate adherence to safety rules, including but not limited to rules published by the Occupational Safety and Health Administration (OSHA), and state and national code requirements. Be able to distinguish between the rules and explain why certain rules apply in a written, oral, or digital presentation using domain-specific terminology. (TN Reading 3, 4, 6)

2) Explain the intended use of equipment available in the classroom. Demonstrate how to properly inspect, use, and maintain safe operating procedures with equipment. Incorporate safety procedures and complete a safety test with 100 percent accuracy. (TN Reading 3, 4)

3) Determine the safety considerations for working both in the studio and in the field. Create a hazard assessment checklist and perform safety inspections for various environments, including a classroom studio. (TN Reading 3, 4; TN Writing 4)

History and Evolution of A/V Production

4) Research the development of A/V production throughout history, analyzing how advances in technology have impacted the industry. Create an annotated timeline or visual graphic illustrating the significant people, time periods, and technological advances affecting A/V production. Citing resources from informational texts, include justification for why each identified item is significant. (TN Reading 1, 2, 4, 5, 7; TN Writing 9)

5) Analyze the impact A/V productions have on society. Investigate the role of media in communicating ideas in society, emphasizing how social, cultural, economic, and political developments are reflected in and influenced by media, including the impact of social media on A/V production. For example, compose a persuasive essay describing how a given social media application has positively or negatively impacted society, such as the rise of cyberbullying on social networks or how non-profit organizations use social media to fundraise. (TN Reading 1, 2, 4; TN Writing 1, 4, 9)

Career Exploration

6) Research A/V production occupations, such as film and video editor, A/V equipment technician, broadcast engineering technician, multimedia animator, camera operator, announcer, producer, director, or reporter. Interpret labor market data, such as information from the Bureau of Labor Statistics and O*Net OnLine, to identify the industries in which A/V production professionals work, including but not limited to the motion picture industry, radio and television broadcasting, advertising, and more. Determine areas of largest growth and discuss emerging trends and careers in A/V production-related industries. (TN Reading 1, 2, 4; TN Writing 9; TN Math S-ID)

Ethical and Legal Issues

7) Investigate the laws impacting the work of A/V production professionals. Accurately describe the First Amendment to the U.S. Constitution and make a claim about its impact on the media industry, citing specific textual evidence from landmark legal cases. (TN Reading 2, 5; TN Writing 1, 4, 9)

8) Drawing evidence from a variety of resources, conduct a short research project to evaluate the proper procedures for legally obtaining and using content for production purposes, including attribution procedures. Examine copyright laws and fair use. In a written, oral, or video presentation, summarize and explain the legal concerns for creating, obtaining, or sharing a production as though leading a training or tutorial for fellow employees. Include the use of property and talent releases. (TN Reading 2, 3, 4, 6; TN Writing 2, 4, 7)

Introduction to the Production Process

9) Explain the production process as described in textbooks, professional websites, and by industry professionals. Describe the components of each phase of production, including pre-production, production, and post-production. Exhibit findings in a written, oral, or digital presentation, citing resources used. (TN Reading 3, 4, 5; TN Writing 2, 4, 6)

Production Equipment

10) Examine the features and functions of various types of video cameras. Explain the interrelationship between f-stops, the iris, and aperture in controlling light, and relate concepts to the physical laws that govern light and other optical phenomena. Differentiate between the focal length and the focal point related to a zoom lens. Describe how to focus a camera and explain the depth of field. Describe the importance and procedures for setting white balance. Summarize the purpose and steps of camera settings in a checklist that a camera operator could use to prepare a camera for capturing video in various environments. (TN Reading 1, 2, 3, 4, 9; TN Writing 4, 9; TN Physical World Concepts 3, TN Physics 4)

11) Analyze the rules of composition and elements of design as related to composing camera shots (i.e. the rule of thirds, field of view, lead room, color, lines, etc.). Examine videos, artwork, and photographs to identify examples of the rules of composition in use and evaluate the impact on the scene. Create a visual presentation to describe the rules of composition, citing examples and counterexamples from various resources. (TN Reading 3, 4, 9; TN Writing 6, 9; TN Visual Art 2.1, 2.2)

12) Distinguish among different types of tri-pods and other camera mounting devices. Demonstrate the proper procedures for setting up a camera on a tripod. Analyze and describe the various types of camera angles, shots, and movements in an infographic or demonstration. Correctly use the proper equipment and procedures to capture video footage. (TN Reading 3, 4)

13) Select the appropriate camera and basic accessories for a given production location. Properly set up the camera including positioning and mounting the camera and connecting the necessary cables. Demonstrate proper procedures to clean and store cameras and equipment. (TN Reading 3, 4, 9)

14) Examine the basic types and applications of various lighting equipment. Compare and contrast studio and field lighting equipment and techniques. Evaluate light quality in terms of intensity, color, direction, and other characteristics. Describe a variety of lighting techniques, including one, two, and three point lighting techniques; demonstrate the ability to provide written specifications for required lighting setups, as a set designer would instruct a gaffer. Employ proper lighting equipment according to industry safety standards. (TN Reading 3, 4, 5, 8, 9; TN Writing 2, 4)

15) Examine the scientific properties and principles of sound, including how sound travels and how digital audio is created. Citing textbooks and online resources, create an informational text with supporting graphics illustrating the principles. (TN Reading 2, 3, 4, 5; TN Writing 2, 4, 6, 7, 9; TN Physical World Concepts 3, TN Physical Science 2)

16) Utilize the knowledge of microphones and scientific principles of sound to appropriately select and place microphones for a given production. Connect microphones to camera equipment and other audio equipment using the proper cables. Compare and contrast the types, uses, and pick-up patterns of various microphones. Create a visual display illustrating pick-up patterns of microphones and listing example scenarios when each is commonly used. Experiment with different microphones and predict the pick-up pattern of each. Consult instructional manuals and manufacturer online resources to evaluate if the conclusions are correct. (TN Reading 2, 3, 4, 9; TN Writing 7, 9; TN Physical World Concepts 3, TN Physical Science 2)

Planning a Production

17) Describe the elements of a story, such as characters, setting, conflict, and resolution. Distinguish among the script styles and writing techniques for different types of productions, including but not limited to news broadcast, documentary, fictional narrative, and advertising. Select at least one example of a fact-based script, an entertainment-based script, and an advertising-based script. Investigate the scripts to compare and contrast the elements of each type. Summarize findings in an informational text, citing evidence from research. (TN Reading 2, 3, 4, 6, 9; TN Writing 2, 9)

18) Utilize the steps of the pre-production phase to create a written plan for a simple production. Conduct a pre-production meeting to develop a production plan. The plan should include but would not be limited to:
    a. Justifying the purpose of the production
    b. Determining the target audience
    c. Writing a script for the production

d. Creating a project budget
e. Outlining a production schedule
f. Choosing a method of content delivery (i.e., online, on radio, on television, live production, etc.)

Justify all recommendations for the budget, production schedule, and method of delivery, then prepare a brief written pitch to a mock funder or studio. Argue for the merits of the project using persuasive language and supporting evidence.
(TN Reading 3, 4; TN Writing 1, 4, 9)

Capturing a Production

19) Select and set up the most appropriate production equipment for a chosen production location. Properly use the appropriate equipment, camera and/or microphone techniques, and composition principles to capture video and/or audio according to a pre-production plan. (TN Reading 3, 4)

Post-Production

20) Demonstrate common procedures to manage digital files and distinguish between the various types of digital video, image, and audio files. Describe file storage in cameras and calculate the amount of recording time a device can hold based on the settings. Log, upload, and organize video and/or audio resources in preparation for editing, converting file formats as necessary. Utilize online file management services to backup files. (TN Reading 3, 4, 9; TN Writing6, 9; Math N-Q)

21) Perform basic software operations to edit videos and/or audio, including assembling clips for proper sequencing, applying transition effects, and inserting basic text to enhance video (i.e. captions and credits). Utilize digital video and/or audio editing software to individually perform post-production procedures to create a short production, such as a three-minute film, news report, or radio broadcast. (TN Reading 3, 4, 7; TN Writing 4, 6)

Projects

22) Apply the production process to independently complete video and/or audio projects for a public audience. Demonstrate the ability to set goals according to the project plan, and select and use the appropriate equipment and procedures to achieve goals. Prepare an informative narrative to explain the final product to a peer, emphasizing how the production process, composition rules, and scientific principles were applied. (TN Reading 3, 4, 7; TN Writing 2, 4)

23) Create a rubric to evaluate the effectiveness of a production based on the rules of composition and project goals. Use the rubric to reflect upon project outcomes and gather feedback from peers. Note constructive feedback received, and use it to improve the outcomes of future projects. Similarly, evaluate the work of others, drawing on composition rules and project goals to provide clear, specific, and constructive feedback. (TN Reading 2, 4, 9; TN Writing 5, 9)

Portfolio

24) Gather examples of professional portfolios from contemporary videographers and journalists. List the items that are often included in a professional portfolio. In a written, visual, or oral presentation, describe the components of a professional portfolio and the benefits of maintaining one. (TN Reading 1, 4, 9; TN Writing 2, 4, 8, 9)

25) Compile relevant artifacts to create a student portfolio connecting personal career preparation to concepts learned in this course, including written descriptions of project processes and reflections on learning outcomes. (TN Writing 4)

Standards Alignment Notes

*References to other standards include:

- TN Reading: Tennessee State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects; Reading Standards for Literacy in Science and Technical Subjects 6-12; Grades 9-10 Students (page 62).
    - Note: While not directly aligned to one specific standard, students who are engaging in activities outlined above should be able to also demonstrate fluency in Standard 10 at the conclusion of the course.
- TN Writing: Tennessee State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects; Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 6-12; Grades 9-10 Students (pages 64-66).
    - Note: While not directly aligned to one specific standard, students who are engaging in activities outlined above should be able to also demonstrate fluency in Standards 3 and 10 at the conclusion of the course.
- TN Math: Tennessee State Standards for Mathematics; Math Standards for High School: Number and Quantity, Statistics (pages 58-83).
    - Note: The standards in this course are not meant to teach mathematical concepts. However, the concepts referenced above may provide teachers with opportunities to collaborate with mathematics educators to design project based activities or collaborate on lesson planning. Students who are engaging in activities listed above should be able to demonstrate quantitative and statistical reasoning as applied to specific technical concepts. In addition, students will have the opportunity to practice the habits of mind as described in the eight Standards for Mathematical Practice.
- TN Physical World Concepts: Tennessee Science: Physical World Concepts standard 3 may provide additional insight and activities for educators.
- TN Physical Science: Tennessee Science: Physical Science standard 2 may provide additional insight and activities for educators.
- TN Physics: Tennessee Science: Physics standard 4 may provide additional insight and activities for educators.
- TN Visual Art: Tennessee Visual Art: Visual Art standards 2.1 and 2.2 may provide additional insight and activities for educators.
- P21: Partnership for 21st Century Skills Framework for 21st Century Learning

- Note: While not all standards are specifically aligned, teachers will find the framework helpful for setting expectations for student behavior in their classroom and practicing specific career readiness skills.